

Date: Tuesday, 4/29/2008 10:16:42 AM
 User: David Duval

Process Sheet

Customer	CU-DAR001 Dart Helicopters Services			Drawing Name	TUBE ASSEMBLY		
Job Number	38871			Part Number	D3697041		
Estimate Number	13287			Drawing Number	D3697 PRELIM		
P.O. Number	:			Project Number	N/A		
This Issue	4/29/2008	S.O. No.	<i>R&D Large Fork</i>	Drawing Revision	PRELIM		
Prsht Rev.	NC	Type	SMALL/MED FAB	Material	:		
First Issue	11			Due Date	5/6/2008	Qty:	1
Previous Run				Um:	Each		
Written By	<i>DL 08/04/30</i>						
Checked & Approved By							
Comment	Est Rev:A 08-04-25 new issue DD verified by:EC						

Additional Product

FOR ENGINEERING USE ONLY

PROTOTYPE

Job Number:



PRELIMINARY ISSUE

Seq. #:	Machine Or Operation:	Description:
1.0	M6061T6T0375W049	6061-T6 Tube .375 x .049W
<i>4/29/08/10</i> Comment: Qty.: <u>6.25</u> f(s)/Unit Total: <u>6.25</u> f(s) 6061T6 aluminium tube OD 0.375" X 0.049" wall (M6061T6T0.375W0.049) Batch: M1014448		
2.0	SMALL FAB 1	SMALL & MEDIUM FAB RESOURCE 1
<i>4/29/08/10</i> Comment: SMALL & MEDIUM FAB RESOURCE 1 1-cut at <u>6.00"</u> as per dwg D3697 <i>18.05.05</i> 2-bend and form as per dwg D3697 using DT <u>9003</u> <i>18.05.05</i> 3-drill holes as per dwg D3697 <u>N/A</u> 4-deburr <u>N/A</u>		
3.0	QC5	INSPECT WORK TO CURRENT STEP ENGINEERING APPROVAL
<i>4/29/08/10</i> / <i>5/08/05/06 CEB</i> Comment: INSPECT WORK TO CURRENT STEP		
4.0	PACKAGING 1	PACKAGING RESOURCE #1
Comment: PACKAGING RESOURCE #1 Pick Packing Kit		

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Process Sheet

30 min

09/05/2008

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: TUBE ASSEMBLY

S.227 08.16

Job Number: 38871

Part Number: D3697041

#1 317.8 F

Job Number:



#2 D3697041 F

#3 B38871 F

#4 B38871 F

Seq. #: Machine Or Operation:

Description:

5.0 D37971

Ground Plate



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Ground Plate

batch: B38859

108/05/06

6.0 D36973

Support Plate, LH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Support Plate, LH

batch: B38860

108/05/06

7.0 D36974

Support Plate, RH



Comment: Qty.: 1.0000 Each(s)/Unit Total : 1.0000 Each(s)

Support Plate, RH

batch: B38862

108/05/06

8.0 LARGE FAB 1

LARGE FABRICATION RESOURCE 1



PTO

Comment: LARGE FABRICATION RESOURCE 1

1-weld D3697-3/-4 and D3797-1 on tube D3697-1 as per dwg D3697

108/05/07

9.0 QC9

VISUAL WELDING INSPECTION



Comment: VISUAL WELDING INSPECTION

108/05/07

10.0 QC5

INSPECT WORK TO CURRENT STEP

ENGINEERING
APPROVAL



Comment: INSPECT WORK TO CURRENT STEP

108/05/07

11.0 HAND FINISHING1

HAND FINISHING RESOURCE #1



108/05/08

Comment: HAND FINISHING RESOURCE #1

1- Chemical Conversion Coat as per QSI 005 4.1

108/05/08

108/05/08

t/1

2- Mask Hatched Areas (5 plis) on both sides
of ground plate only. Before powder coating

108/05/09

108/05/09

Batch: m100700

Seg. 8.0 | 2 - drill holes in (5 pls) as | M 08/05/07

per draw Δ 3697

100 M

100 M

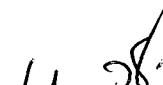
100 M

100 M

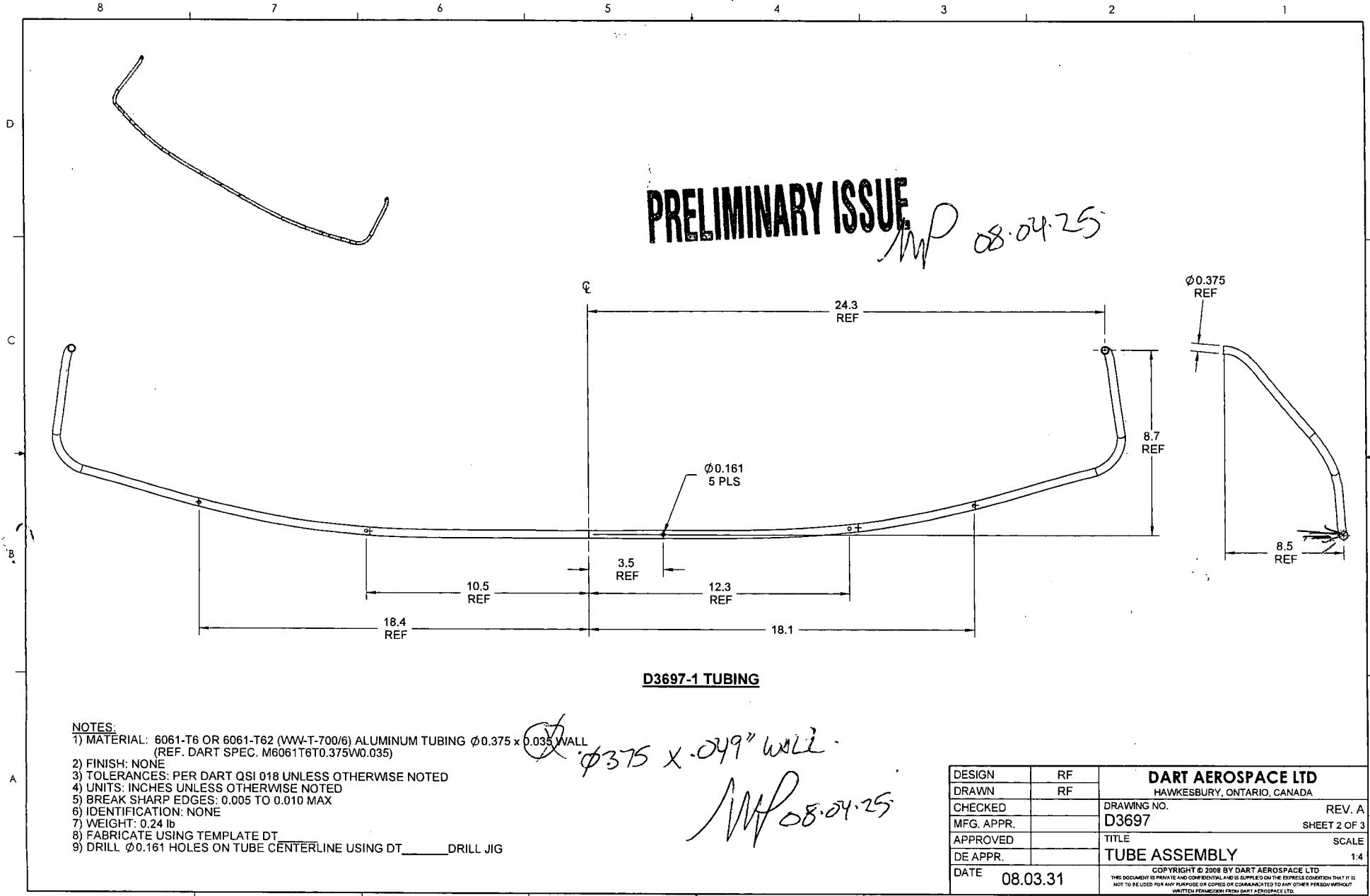
100 M

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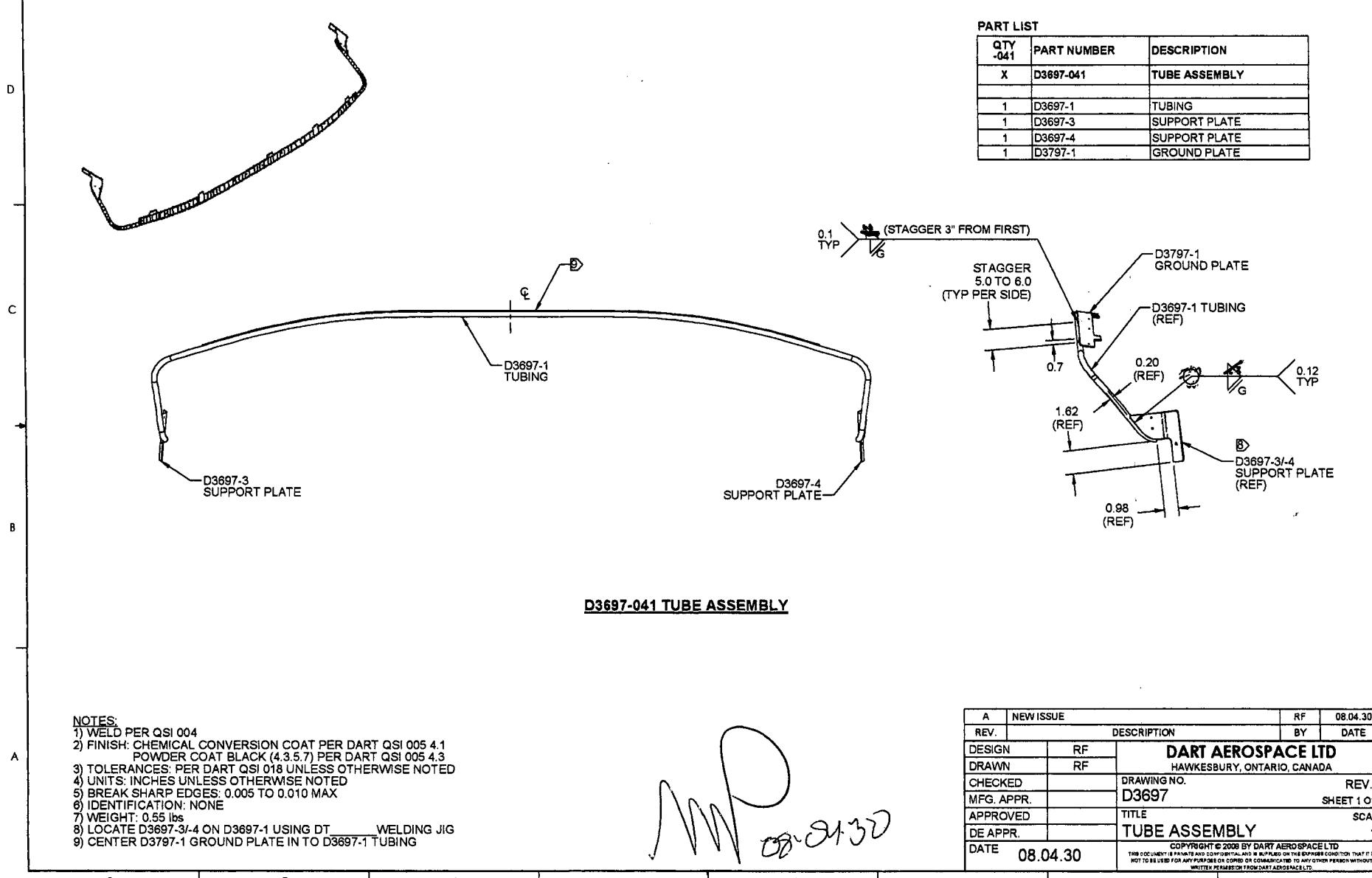
Process Sheet

Customer: CU-DAR001 Dart Helicopters Services		Drawing Name: TUBE ASSEMBLY
Job Number: 38871		Part Number: D3697041
Job Number: 		
Seq. #:	Machine Or Operation:	Description :
12.0	POWDER COATING 	POWDER COATING M 100700 
Comment: POWDER COATING Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3		
START TIME: 2:45 pm OVEN TEMPERATURE: 320°F FINISH TIME: 3:15 pm 10 08-05-06 (X1)		
13.0	QC3 	INSPECT POWDER COAT/CHEMICAL CONVERSION S08/05/0700 
Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION		
14.0	PACKAGING 1 	PACKAGING RESOURCE #1 
Comment: PACKAGING RESOURCE #1 Identify as stock give to David Duval Location:		
15.0	QC21 	FINAL INSPECTION/W/O RELEASE 08.05.13 PROTOTYPE 
Comment: FINAL INSPECTION/W/O RELEASE		
Job Completion  Charge to 1000\$ WIP  U 28.2509		

32 1/4" 8" 16" 3 1/8" bond



8 7 6 5 4 3 2 1



PROTOTYPE REQUEST FORM

DART Aerospace Ltd.

Product #: D412-776-011

Job #: 00235

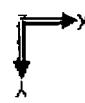
Date: 25-Apr-08

Product Name: B412 Glareshield

Requested By: MP for RF

Design Manager Approval: MF

Quantity	Part Number	Description	Drawing Date	Material Cert Req'd?	Due Date	Comments	Date Completed
1	D3697-1	Tube	31/03/2008	y	09-May-08		
1	D3797-1	Ground Plate	31/03/2008	y	09-May-08		
1	D3697-3	Support Plate LH	31/03/2008	y	09-May-08		
1	D3697-4	Support Plate RH	31/03/2008	y	09-May-08		
1	D3698-1	Support Angle	31/03/2008	y	09-May-08		
1	D3690-1	Glareshield	31/03/2008	y	09-May-08		
1	D3697-041	Tube assy	31/03/2008	y	09-May-08		
1	D3699-041	Support Assy	31/03/2008	y	09-May-08		
1	D3699-042	Support Assy	31/03/2008	y	09-May-08		
1	D3690-041	Glareshield Assy	31/03/2008	y	09-May-08		



ROBEETO 08/05/03

AT ONCE, WE WILL BE RECEIVE YOU INPUT,
I WILL DO ALL THE CHANGE ON ALL THE BWS

TYPE MASK IN ALL (5 PLACES)
IN BOTH SIDE RIBOR POWDER COAT
COMPLETE TUBE ASSY IS BLACK
EXCEPT HATCH AREA ON THE SECOND PLATE

File : (613) 632-1033
ATTN: DAVID DUVALL

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____
 QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
08/05/08	# 20	welded in wrong orientation Orientation.	Initial 08/05/08	Scrap and Destor and Replace QTY (6) B6 104408	08/05/08	2/5/08	1/14/08	08/05/08

NOTE: Date & initial all entries

Receiving Report

Date: June 28/06

Supplier: Intermetal Keystone

Batch No: 1101448

Dart P/O: 1455

Packing Slip: Yes No
 Invoice: Yes No
 Receipt: Cash Cr

Release Note Attached: Yes No N/A
 Waybill Attached: Yes No
 Shipment Complete: Yes No N/A
 QC6 Inspection: MS ok/ok N/A
 Work Order N/A

Discrepancies

Part Number	Description	Quantity Ordered	Quantity Received	Quantity Returned	Quantity Short	Comments

Initials of receiver (if shipment OK) Level 12 SH

Production/Admin:

Date 06/28/06

Received/Costing PCD1919

Initial CS

Location

APPLICABLE REQUIREMENTS:

ASTM-B241-02-STENCILED
 ASTM-B221-02
 ASME-SB241 1998 SECT II
 AMS-QQ-A-200/8 TYPE 1
 ASTM-B345-02
 UNS#96061

Kaiser Aluminum & Chemical Corp. ('Kaiser') hereby certifies that metal shipped under this order has been inspected and tested and found in conformance with the applicable specifications forming a part of the description set forth in Kaiser's sales acknowledgement form. Any warranty is limited to that shown on Kaiser's general terms & conditions of sale. Test reports are on file, subject to examination.

Q. C. REVIEWED

Frank B. Watson
 Quality Assurance Manager

AT 3.5.375 733

KAISER CHANDLER

CERTIFICATION and PHYSICAL TEST RESULTS

QP 0284

CHANDLER PLATE
BOX 5011 6573 W WILLIS ROAD
CHANDLER AZ 85225
PH: 520.796.1097
FAX: 520.796.0898
SALES: 800.628.8274

These results are for

MARMON/KEYSTONE CORP

Mill Number

175-43923. Purchase Order No 25-19569-001

Alloy

6081 Temper..... T6

Part No, Item No, Commodity No or Inventory No

Size Description. .375 IN OD X .049 IN WALL

Specification(s). WW-T-700/6F ASTM B210-04 AMS 4082N

Additional procedures as called for on Specification:

MADE IN U.S.A. WE TAKE EXCEPTION TO PARA. 5.2.1. Per AMS 4082N, WAS NOT OILED.

Chemical Composition Per Aluminum Standards and Data 2003											
Limits	Si	Fe	Cu	Mn	Mg	Cr	Ni	Zn	Ti	Others	Al
MIN 0.40	*	*	0.15	—	0.8	0.04	—	—	—	El 0.05	Remainder
MAX 0.8	0.7	0.40	0.15	1.2	0.35	—	0.25	0.15	Total 0.15		
Actuals	0.63	0.22	0.25	0.03	0.96	0.05		0.02	0.02		
	0.58	0.22	0.20	0.02	0.91	0.06		0.02	0.02		
	0.80	0.19	0.22	0.02	0.92	0.08		0.01	0.02	Each 0.05	Remainder
										Total 0.15	

* For WW-T-700/4 specification, maximum Si plus Fe is .45%.

** 1100 Alloy Max Si + Fe is 0.95 %

Mechanical Properties		Yield PSI	Ultimate PSI	Elongation %
Lot #	Temp			
43821	ATB	43,000	46,000	13
43821	BTB	42,600	45,800	14

Domestic Melt Source Made in USA

We hereby certify that the material covered by this report has been inspected in accordance with, and has been found to meet, the applicable requirements described herein, including any specifications forming a part of the description; and that samples representative of the material met the composition limits and had the mechanical properties as indicated.

Date 09/12/2005

J.A. Merzak

J. A. Merzak
Tech. Mgr. Tube

CertAct

MMCertAct

Q.C. Reviewed
MAR 15 2006